

REMARKS

Claims 1-3, 5-9 and 11-19 are pending in the present application. Claims 11-13, 18, and 19 are rejected under 35 U.S.C. 102(b), and claims 1-3, 5-9, and 14-17 are rejected under 35 U.S.C. 103(a). Claims 1 and 11 are amended, and claims 5 and 15 are canceled. The rejections are respectfully traversed in light of the following remarks, and reconsideration is requested.

Rejections Under 35 U.S.C. 102(b)

Claims 11-13, 18, and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Caveney et al. (USPN 5,765,983). Caveney, in Fig. 1, disclose a robot 24 located within load lock 22 for moving wafers 44 from wafer cassettes 40 in a cassette elevator 38 to process chambers 26, 28, 30, 32.

In contrast, claim 11, as amended, recites “a processing system including a transport module, a load lock, and a process chamber; a semiconductor wafer transport device disposed in said transport module”. As seen from Figs. 2A and 2B of Applicant’s specification, the transport device 16 is located within transport module 14, which is separate from load lock 20 and process chamber 18. Claim 11 further recites “said semiconductor wafer transport device being configured to deliver said semiconductor wafer to said load lock or process chamber”.

Thus, Applicant’s claimed invention allows the transport device to deliver or move wafers into either a load lock or a process chamber. The system in Caveney only allows wafers to be moved into process chambers because the robot is located in the actual load lock. By placing the transport device into a transport module, instead of a load lock, the load lock becomes a simpler component within the system since a transport device does not need to operate within the load lock and there is less chance of contamination within the load lock.

Applicant notes that the Examiner calls element 22 of Caveney the transport module. However, Caveney states that element 22 is a “common load lock” (col. 4, line 9), “vacuum load lock” (col. 4, line 22), and “load lock chamber” (col. 4, line 32). Thus, it is clear that element 22 is a load lock and not a transport module, as in Applicant’s invention. To further clarify, claim 11 has been amended to recite a separate load lock in addition to the transport module.

Therefore, Applicant believes claim 11 is patentable over Caveney.

Claims 12, 13, 18, and 19 depend on claim 11 and are thus patentable over Caveney for at least the same reasons as claim 11 discussed above.

Consequently, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. 102(b).

Rejections Under 35 U.S.C. 103(a)

Claims 1-3, 5-9, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caveney et al. in view of Gordon et al., Beaulieu et al., and/or Moore et al.

Claim 1, as amended, recites “providing a processing system including a transport module, a load lock, and process chamber; extending a semiconductor wafer transport device, located within said transport module, and moving said wafer into said load lock or process chamber”. Consequently, for reasons similar to those provided above with respect to claim 11, claim 1 is patentable over Caveney.

The Examiner cites Gordon for disclosing a FOUP device, Beaulieu for disclosing different types of process chambers, and Moore for disclosing a rapid thermal processing chamber. However, neither Gordon, Beaulieu, nor Moore remedy the deficiencies of Caveney, as discussed above with respect to claim 1 and as discussed in previous responses. Thus, claim 1 is patentable over Caveney et al. in view of the cited references.

Claims 2, 3, 6-9, 14, 16, and 17 depend on claims 1 and 11 and are therefore patentable for at least the same reasons as claims 1 and 11.

Claims 5 and 15 are canceled.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. 103(a).

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CONCLUSION

For the above reasons, pending claims 1-3, 6-9 and 11-14, and 16-19 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

I hereby certify that this correspondence is being deposited with The U.S. Postal Service in an envelope with sufficient first class postage addressed to Commissioner for Patents, Alexandria, VA 22313-1450, on August 2, 2004.

Rita K. Kimmel 8/2/2004
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